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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,873	10/31/2001	Mike Thomas	ANCO-25US/119	7709

26875 7590 09/15/2003
WOOD, HERRON & EVANS, LLP
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EXAMINER

PHAN, THO GIA

ART UNIT PAPER NUMBER

2821

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application N .

09/998,873

Applicant(s)

THOMAS ET AL.

Examiner

Tho G. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/12/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9-12</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Amendments "B" received on 06/12/03 have been entered as paper number 13 in this application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5-11 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (Re. 34,796).

Smith et al in figures 2-3 disclose a distributed antenna array comprising a plurality of antenna elements 220 configured in an antenna array with each of the antenna elements in the array being simultaneously coupled to a common feed signal, a plurality of power amplifiers 205, each power amplifier being operatively coupled with one of the antenna and mounted closely adjacent to the associated antenna element, such that no appreciable power loss occurs between the power amplifier and the associated antenna

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element and each power amplifier comprising a relatively low power, linear power amplifier.

3. Claims 1, 3, 5-11 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Charas et al (5,548,813) [newly cited].

Charas et al in figure 6 disclose a distributed antenna array comprising a plurality of antenna elements 103 configured in an antenna array with each of the antenna elements in the array being simultaneously coupled to a common feed signal 115, a plurality of power amplifiers 101, each power amplifier being operatively coupled with one of the antenna and mounted closely adjacent to the associated antenna element, such that no appreciable power loss occurs between the power amplifier and the associated antenna element and each power amplifier comprising a relatively low power, linear power amplifier.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, 12-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al in view of Carloni et al (5,815,115).

Smith et al have been discussed above but fail to teach a first/second DC bias tee mounted on the tower/support structure and operatively coupled with the antenna structure. However, Carloni et al in figures 2-7 disclose a first/second DC bias tee mounted on the tower/support structure and operatively coupled with the antenna structure. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to employ the DC bias tee as taught by Carloni et al for the purpose of separating the RF signaling from the DC power supply current in the RF feeder cable and also for providing the DC power supply current to the local power supply of the tower mounted amplifier.

6. Applicant's arguments filed on 6/12/03 have been fully considered but they are not deemed to be persuasive.

Applicant argues that the Smith et al reference fail to teach a distributed antenna array comprising a plurality of antenna elements configured in an antenna array with each of the antenna elements in the array being simultaneously

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coupled to a common feed signal. However, examiner respectfully disagrees with applicant's position, as shown in figure 2, Smith et al disclose each of the right sided antenna elements 220 in the array being simultaneously coupled (via connecting switch 201) to a common feed signal.

7. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner THO G. PHAN whose telephone number is (703) 308-3051.

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9. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

10. Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

A handwritten signature in black ink, appearing to read 'THO G. PHAN', is written over a horizontal line.

THO G. PHAN

Patent Examiner

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September 5, 2003